Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims

Claim 1 (currently amended) An episode classification system comprising:

    a.   a multitude of diagnosis records, each of said diagnosis records including:

        i.   diagnosis information;

        ii.   time of said diagnosis information; and

        iii.   patient information;

    b.   a patient grouper for generating at least one patient group by grouping patient records having similar said patient information;

    c.   a diagnosis grouper for generating at least one diagnosis group by grouping diagnosis records with similar said diagnosis information from ~~each of~~ said patient group;

    d.   an episode analyzer including:

        i.   a probability analyzer for performing probability calculations ~~, each of said probability calculations~~ that are capable of generating a ~~probability~~ value that is proportional to a probability that shows whether ~~using~~ at least two of said multitude of diagnosis records being used as input entries belong to a single episode, ~~said probability value representing the probability that said input entries belong to a single episode~~, wherein ~~each of~~ said episode is a group of diagnoses on the same patient that describes the course of a given illness ~~but not~~, and wherein said episode is not healthcare provided services;

ii.   an episode grouper for grouping said diagnosis records determined to

belong to said single episode; and

iii.   a severity analyzer for performing episode severity calculations, ~~each of~~

said episode severity calculations capable of generating an episode

severity value.

Claim 2 (previously presented) The episode classification system according to claim 1, wherein

at least one of said diagnosis records is an anchor diagnosis record.

Claim 3 (previously presented) The episode classification system according to claim 1, wherein

at least one of said diagnosis records is a trigger diagnosis record.

Claim 4 (previously presented) The episode classification system according to claim 1, wherein

at least one of said diagnosis records is a stopping point diagnosis record.

Claim 5 (previously presented) The episode classification system according to claim 1, wherein

said probability calculation:

a.   operates on a pair of said diagnosis records; and

b.   is a function of:

i.   a similarity value, said similarity value representing the similarity between

said pair of said diagnosis records; and

ii.   a time between diagnosis value, said time between diagnosis value

representing the time between said pair of said diagnosis records.

Claim 6 (previously presented) The episode classification system according to claim 5, wherein

said probability calculation includes a probability numerator divided by a probability

denominator, said probability numerator set to said similarity value times a first constant,

and said probability denominator set to the quantity of a second constant times said time

between diagnosis value plus one.

Claim 7 (currently amended) A method for episode classification using a multitude of diagnosis

records, ~~each of~~ said multitude of diagnosis records including: diagnosis information;

time of said diagnosis information; and patient information; comprising the steps of:

    a.   creating at least one diagnosis pair from said multitude of diagnosis records, each

            said diagnosis pair containing a unique combination of two diagnoses

            information;

    b.   for each said diagnosis pair, iteratively:

          i.   determining a co-occurrence value, said co-occurrence value being the

                 number of unique patients for whom the two diagnoses contained in ~~each~~

                 ~~of~~ said diagnosis ~~pairs~~ <u>pair</u> occurred within a co-occurrence window; and

          ii.   associating said co-occurrence value with each diagnosis information

                 contained in said diagnosis pair;

    c.   creating at least one patient group by grouping said patient records having similar

            said patient information; and

    d.   for each said patient group, iteratively:

i.   creating at least one diagnosis group by grouping said diagnosis records having similar said diagnosis information;

ii.   for each said diagnosis group, iteratively adding a unique occurrence identifier to said diagnosis information for each said diagnosis record;

iii.   creating at least one time between diagnosis pair from said diagnosis records in said diagnosis group, each said time between diagnosis pair containing a unique combination of two said diagnosis records;

iv.   for each said time between diagnosis pair, iteratively:

    1.   setting a time between diagnosis pair value for each said diagnosis pair equal to the absolute value of the difference between said time of said diagnosis information from each said diagnosis record in said diagnosis group;

    2.   setting a score numerator equal to said co-occurrence value having the same combination of diagnosis information as said time between diagnosis pair value;

    3.   calculating a score for said diagnosis pair by dividing said score numerator by said time between diagnosis pair value; and

    4.   associating said score to said diagnosis pair;

v.   setting a minimum score value equal to the minimum said score from the set of said scores associated to each [[of]] said diagnosis pair in said patient group;

vi.   setting a maximum score value equal to the maximum said score from the set of said scores associated to each [[of]] said diagnosis pair in said patient group;

vii.   setting a difference score value equal to difference of said maximum score value and said minimum score value;

viii.   for each said diagnosis pair, iteratively:

    1.   setting a standardized score numerator value equal to said minimum score minus said score associated to said time between diagnosis pair value;

    2.   setting a standardized score equal to said standardized score numerator divided by said difference score value; and

    3.   associating said standardized score to said diagnosis pair; and

ix.   classifying each said diagnosis information into at least one episode using said standardized score, wherein ~~each of~~ said episode is a group of diagnoses on the same patient that describes the course of a given illness ~~but not~~ , and wherein said episode is not healthcare provided services.

Claim 8 (currently amended) The method according to claim 7, wherein said step of classifying each said diagnosis information into at least one episode includes the steps of:

a.   flagging each [[of]] said diagnosis information in said patient group for analysis; and

b.   until all diagnosis information in said patient group is analyzed, iteratively:

  i. combining two of said diagnosis information in said patient group flagged

    for analysis which have the maximum said standardized scores not

    exceeding a preset cutoff into an episode record;

  ii. creating a new diagnosis information, said new diagnosis information

    representing said diagnosis information in said episode record;

  iii. calculating a new standardized score for said new diagnosis information

    by averaging the standardized score associated with each [[of]] said

    diagnosis information in said episode record; and

  iv. de-flagging said diagnosis information in said episode record for further

    analysis.